

# **Transportation System Performance Measures**

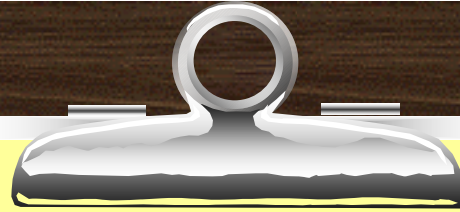
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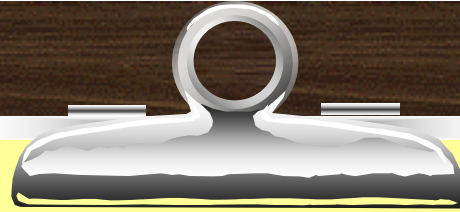
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May 11, 1999



## **Why Transportation System Performance Measures?**

- Transportation is vital to quality of life and economic growth
- Systems approach to planning and decision making
- Provide modal-neutral customer and decision information



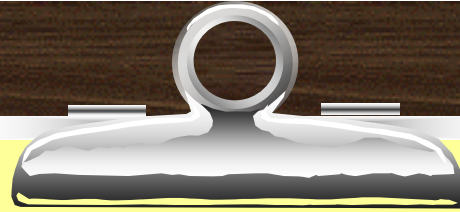
## Goals For the Project

- “To develop indicators/measures to assess the performance of California’s multi-modal transportation system to support informed transportation decisions by transportation officials, operators, service providers, and system users.”
- “To establish a coordinated and cooperative process for consistent performance measurement in California.”



## **Performance Measures Development Objectives**

- Broad participation and consensus
- Simple framework
- Focus on desired customer outcomes
- Understand key transportation indicators and relationships
- Best practices for measurement activities



## **How We Will Use Performance Measurement**

- Monitor existing performance and forecast future performance
- Inform system users and customers
- Establish public accountability
- Provide information about the system to serve as a basis for decisions



# Overall Approach

**Identify Desired  
Outcomes of  
Transportation**



**Define Candidate  
Performance  
Indicators**



**Proof of  
Concept Testing**



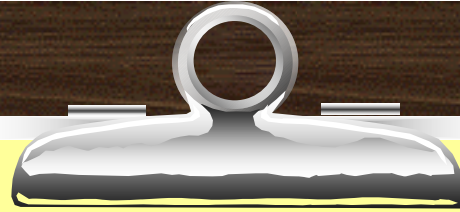
**Incremental  
Implementation**



## **Performance Measures Project**

- **Phase 1: Design Outcomes and Measures**  
Complete as part of California Transportation Plan (8/98)
- **Phase 2: Testing and Validation**  
Preliminary findings available this spring.
- **Phase 3: Incremental Deployment**  
Formal “kick-off” this fall. Incremental deployment opportunities exist.

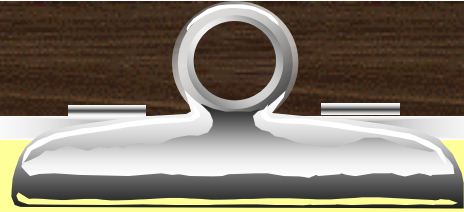




## **Upcoming Deliverables (June 99)**

- **Mobility, reliability and safety findings**
  - Highways
  - Transit
  - Intercity rail
- **Economic well-being outcome**
  - Draft findings
- **State of system report outline**





## **Design Phase (Completed)**

- Completed in 1998
- Focused on transportation “outcomes”
- Leveraged existing efforts within the State (e.g., SCAG, MTC) and around the country
- Developed candidate indicators that are customer driven and applicable to all modes



## **Outcomes Selected**

- Mobility & Accessibility
- Reliability
- Safety and Security
- Cost Effectiveness
- Economic Well-Being
- Sustainability
- Environmental Quality
- Equity
- Customer Satisfaction



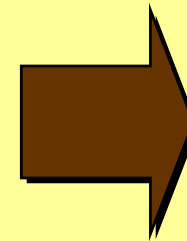
## Transportation Outputs

- Number of lanes
- Lane capacity
- On-time transit performance
- Fares
- Mode shift
- Vehicle miles traveled
- Average speeds
- Speed variations
- Average vehicle occupancy
- Incidents
- Accidents



## Performance Indicators

- Delay (lost time)
- Travel time
- Variation in travel time
- Benefit cost ratio
- Accident rates
- Household transportation costs
- Passenger survey-based customer satisfaction index



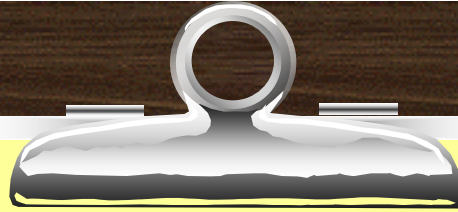
## System Performance Outcomes

- Mobility and accessibility
- Reliability
- Cost effectiveness
- Economic well-being
- Sustainability
- Environmental quality
- Safety and security
- Equity
- Customer satisfaction



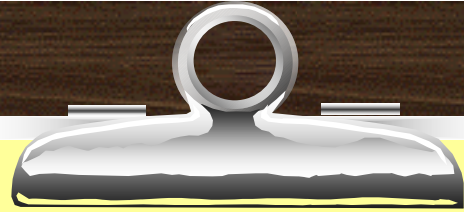
## Testing Phase (Underway)

- **Design and test** the most promising indicators, such as:
  - Mobility: travel time, delay
  - Reliability: variance in travel time
  - Safety: accident rates
- **Continue testing** of remaining indicators
- **Continue coordination** with regional and local agencies
- **Refine design** for incremental implementation



## **Special Attention Areas**

- Indicators must be easy to use/simple to understand
- Indicators must be measurable across all modes
- Use existing data sources and conform to existing performance activities as much as possible
- Achieve simplicity and comprehensiveness
- Attracting and maintaining policy and technical advice
- Focus on outcomes (products) and note outputs (process)
- Political buy-in needed for success



# **Performance Measures Are Tools**

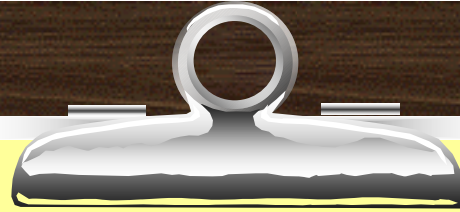
- Standard management
- Consensus building
- Decision-making
- Information sharing



## **Performance Measures Are Not**

- A panacea
- Data in: magic out
- Shifting regional or State roles
- Simple





## **1999/2000 Direction**

- Build and expand internal and external consensus
- Continue validating outcomes and indicators
- Develop a State of the System Report (Interregional)
- Initiate SHOPP performance measurement testing.
- Recommendations for revised data collection and analysis tools